UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,190	04/27/2000	Richard M. Wyatt	2037.2002-000	2260

21005	7590	06/28/2006

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EXAMINER
WILSON, ROBERT W

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _5/26/06_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _46-62_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _46-62_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 46-62 rejected under 35 U.S.C. 103(a) as being unpatentable over Balmer (U.S.

Patent No.: 5,524,265).

Referring to claim 46, Balmer teaches: the queuing method per Figure 16 and per col. 54-line 41-

col. 56 line 46 comprising the step of: a plurality of pointers are written into the source memory

or first memory location of the transfer processor per Figure 16 and per col. 54 line 41-col. 56

line 48. A linked list of pointers are transferred to the destination memory or second memory of

the master processor which establish a linked list per Figure 16 and per col. 54 line 41-col. 56

line 48.

Balmer does not expressly call for: destination memory or 2nd memory having a different access

time from the source memory or first memory

Balmer teaches that the memories are in two different processors. It would have been obvious to

one of ordinary skill in the art at the time of the invention that two different processors would

each have a memory with different access time because the processors are different processors.

Referring to claim 47, Balmer teaches the queuing method as claimed in claim 46

Balmer does not expressly call for: the first memory access time is less than the second memory

access time. Balmer teaches that the data transferred are as a linked list or a parallel data

transfer. It would have been obvious to one of ordinary skill in the art at the time of the

invention that a link list or parallel data transfer is performed instead of a serial data transfer to the second memory because the access time of the second memory is slower than the access time of the first memory.

Referring to claim 48, Balmer teaches the queuing method as claimed in claim 46 and wherein the step of transferring forward the plurality of pointers to the second memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: transferring as a single transfer cycle

Balmer teaches: that the transfer controller transfers all of the linked list of pointers from the first until the last is complete per col. 56 lines 1-20.

It would have been obvious to one of ordinary skill the art at the time of the invention that transferring the linked list from first until last is complete defines a single transfer cycle in order for the invention to work.

Referring to claim 49, Balmer teaches the queuing method as claimed in claim 46 and wherein the step of writing writes each pointer in a single write operation to the source memory or first memory per col. 56 lines 1-20.

Balmer does not expressly call for: transferring as a single transfer cycle

Balmer teaches: that the transfer control write each pointer into the source memory per Figure 16 and per col. 54 line 41-col. 56 line 48. It would have been obvious to one of ordinary skill the art at the time of the invention that transferring each pointer into the source memory is the same transferring each as a single transfer cycle in order for the invention to work.

Referring to claim 50, Balmer teaches the queuing method as claimed in claim 46

Balmer does not expressly call for: de-queuing each pointer from the destination memory or second memory

Balmer teaches: replacing the previous linked list with a new linked list per Figure 16 and per col. 54 line 41-col. 56 line 48. It would have been obvious to one of ordinary skill the art at the time of the invention that replacing the previous linked list with a new linked list is de-queuing each pointer from the destination or second memory.

Referring to claim 51, Balmer teaches the queuing method as claimed in claim 46 and transferring the data into the second memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: forwarding a full cache row

Balmer teaches: different formats can be used to transfer the data from a source to a destination dependent upon the architectural dimensions of source and destination memories respectively per col. 56 lines 23-48.

It would have been obvious to one of ordinary skill the art at the time of the invention that to transfer a full cache row to the second memory because transferring a full cache row to the second memory is one method of performing a link list transfer because the architectural dimension of the second memory is equal to the time of a full cache row transfer of the first memory.

Referring to claim 52, Balmer teaches the queuing method as claimed in claim 46 and transferring the data into the second memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: forwarding a partially filled cache row

Balmer teaches: different formats can be used to transfer the data from a source to a destination

dependent upon the architectural dimensions of source and destination memory respectively per

col. 56 lines 23-48.

It would have been obvious to one of ordinary skill the art at the time of the invention that to

transfer a partially filled cache row to the second memory because transferring a partially filled

cache row to the second memory is one method of performing a link list transfer because the

architectural dimension of the second memory is equal to the time of a partially filled cache row

transfer of the first memory.

Referring to claim 53, Balmer teaches the queuing method as claimed in claim 46 and

transferring the data into the second memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: wherein the cache row is transferred in a single write cycle

Balmer teaches: different formats can be used to transfer the data from a source to a destination

dependent upon the architectural dimensions of source and destination memories respectively

and these transfers are performed as a linked list per col. 56 lines 23-48.

It would have been obvious to one of ordinary skill the art at the time of the invention that to

transfer a full cache row to the second memory because transferring a full cache row to the

second memory is one method of performing a link list transfer because the architectural

dimension of the second memory is equal to the time of a full cache row transfer of the first

memory and to perform this as a single write cycle in order for the invention to work.

Referring to claim 54, Balmer teaches the queuing method as claimed in claim 52 and

transferring the data into the second memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: wherein the cache row is transferred in a single write cycle

Balmer teaches: different formats can be used to transfer the data from a source to a destination

dependent upon the architectural dimensions of source and destination memories respectively

and these transfers are performed as a linked list per col. 56 lines 23-48.

It would have been obvious to one of ordinary skill the art at the time of the invention that to

transfer a full cache row to the second memory because transferring a full cache row to the

second memory is one method of performing a link list transfer because the architectural

dimension of the second memory is equal to the time of a full cache row transfer of the first

memory and to perform this as a single write cycle in order for the invention to work.

Referring to claim 55, Balmer teaches the queuing method as claimed in claim 46 and

transferring the data into the first memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: entries in a cache row in the first memory are ordered by

position in the cache row.

Balmer teaches: different formats can be used to transfer the data from a source to a destination

dependent upon the architectural dimensions of source and destination memory respectively per

col. 56 lines 23-48.

It would have been obvious to one of ordinary skill the art at the time of the invention that to store the pointer into the first memory by cache row position if the dimension of the pointer is the same as the cache row dimension.

Referring to claim 56, Balmer teaches the queuing method as claimed in claim 46 and transferring the data into the first memory per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: entries in a cache row in the first memory includes two cache rows

Balmer teaches: different formats can be used to transfer the data from a source to a destination dependent upon the architectural dimensions of source and destination memory respectively per col. 56 lines 23-48.

It would have been obvious to one of ordinary skill the art at the time of the invention to store the pointer in the first memory in two cache rows if the dimension of the pointer is equal to twice the dimension of two cache rows.

Referring to claim 62, Balmer teaches the queuing method as claimed in claim 46 per col. 54 line 41-col. 56 line 48.

Balmer does not expressly call for: wherein each pointer is determined form a packet header of a data packet.

Balmer teaches: the pointer points to the whole packet including header per Figure 14A

It would have been obvious to one of ordinary skill the art at the time of the invention for the pointer to point to the header or be determined by the header in order for the system to know where the pointer begines.

In addition Balmer teaches:

Regarding claim 58, linked list stored in the destination memory or second memory includes link to next packet per col. 54 line 41-col. 56 line 48

Regarding claim 60, the plurality of pointers are packet pointers per col. 54 line 41-col. 56 line 48

Regarding claim 61, wherein the plurality of pointers are written into a destination of egress port per 54 line 41-col. 56 line 48

Referring to claim 57, Balmer teaches the queuing method as claimed in claim 46 packet vector stored in the destination memory which can be in a multi dimension or cache row format per col. 56 lines 23-48. Balmer does not expressly call for: count of the number of pointers stored in the cache row but teaches a guided transfers per col. 57 lines 19-56.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a number of pointers stored in a row in order to perform a guided transfer.

Regarding claim 59, linked list stored in the destination memory or second memory includes link to next packet per col. 54 line 41-col. 56 line 48.

Response to Amendment

3.   Applicant's arguments with respect to claims 42-62 have been considered but are moot in view of the new ground(s) of rejection.

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
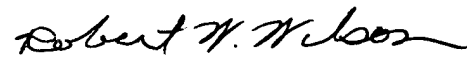
final action.

Conclusion

5.   The applicant should be advised that the IDS received on 3/25/02 did not contain a list of

references nor were copies of the references provided. If the applicant wishes references to be

considered the applicant needs to resubmit these references well as the list of references.

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

The examiner can normally be reached on M-F (8:00-4:30).

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Doris To can be reached on 571/272-7629. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

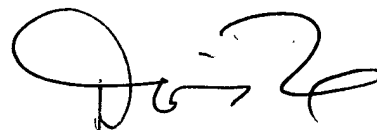information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert W Wilson
Examiner
Art Unit 2616

RWW
6/21/06

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